Zentrum für Ökonomische und Soziologische Studien

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Interest Rate Policy of the Banque Centrale des Etats de l'Afrique de l'Ouest: International Currency Hierarchy, Monetary Base Coverage and Bank Lending in the WAEMU?

ZÖSS
ZENTRUM FÜR ÖKONOMISCHE
UND SOZIOLOGISCHE STUDIEN

ZÖSS-Discussion Papers
ISSN 1868-4947/76
Discussion Papers
Hamburg 2020

Interest Rate Policy of the Banque Centrale des Etats de l'Afrique de l'Ouest: International Currency Hierarchy, Monetary Base Coverage, and Bank Lending in the WAEMU*

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Discussion Paper
ISSN 1868-4947/76
Zentrum für Ökonomische und Soziologische Studien
Universität Hamburg
Februar 2020

* This is a revised and translated version uploaded in March 2022.

Impressum:

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Herausgeber/Redaktion:

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Abstract

While criticism of the post-colonial character of the CFA franc zone is intensifying, little research has yet been done on the concrete implications of this currency regime for the monetary policy of the two CFA central banks – and hardly any attention is being paid to these implications in the current political debate on the reform of the CFA franc zone. This is why the present article first addresses the autonomy of the interest rate policy of the Banque des Etats de l'Afrique de l'Ouest (BCEAO), which sets the key interest rate for the western part of the CFA zone countries. It can be seen here that, on the one hand, the BCEAO's response to the ECB's interest rate policy since 1994 is very largely compatible with the assumptions of the open-economy trilemma and, on the other, that the difference in interest rate levels cannot be explained using the traditional assumptions of interest rate parity theory. We thus have to have recourse to the post-Keynesian notion of the international currency hierarchy. The second part of the study first theoretically explores the monetary policy implications of the institutionally anchored requirement that 20 percent of the monetary base need to be covered by foreign exchange reserves. A descriptive analysis of the evolution of monetary aggregates then shows that the potentially restrictive effect of the monetary base coverage is presently not (yet) constraining commercial bank lending in the WAEMU.

Keywords: CFA Franc, WAEMU, monetary policy, currency hierarchy, bank lending

1. Introduction

The CFA franc zone is distinguished by the fact that it is both a monetary union and a fixed exchange rate system vis-à-vis the euro. This peculiarity is primarily to be explained by the background to its formation in colonial history. Introduced on 26 December 1945 to cement the monetary relations of the sub-Saharan French colonies to the French "motherland", the CFA franc (F-CFA) is now used as currency in 14 African countries: Whereas Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal and Togo form the West African Economic and Monetary Union (WAEMU), Cameroon, the Central African Republic, Congo, Gabon, Equatorial Guinea and Chad constitute the Central African Economic and Monetary Community (known under the French acronym CEMAC). The abbreviation F-CFA is identical for both currency areas, although it means *Franc de la Communauté Financière d'Afrique* for the members of the WAEMU and *Franc de la Coopération Financière en Afrique Centrale* for those of the CEMAC. The official meaning up until 1960, the *Franc des Colonies Françaises d'Afrique*, became obsolete after the CFA countries gained political independence (Hofmeier 2004a, p. 913; Hofmeier 2004b, pp. 933–934). The founding of the *Banque Centrale des Etats de l'Afrique de l'Ouest* (BCEAO) in 1959 and the *Banque des Etats de l'Afrique Centrale* (BEAC) in 1972 created an institutionally independent central bank for each CFA subzone.

Although the French franc was replaced as the exchange-rate anchor of the CFA franc with the introduction of the euro in 1999, France is still responsible for the convertibility of the currency. This means that the French Treasury guarantees the fixed nominal exchange rate by way of theoretically unlimited overdraft facilities in case of balance of payment problems. This guarantee of convertibility is tied to two key operational principles of the exchange rate regime: The CFA central banks are required, first, to hold 50 per cent (65 per cent before 2005) of foreign exchange reserves directly with the French Treasury in so-called operation accounts (*comptes d'opérations*)[1] and, second, to cover 20 per cent of the monetary base by gross foreign assets.

In recent years, criticism of the exchange rate regime has intensified. Whereas part of the criticism refers to a real overvaluation of the CFA franc (Gnansounou & Verdier-Chouchane, 2012) or to its constant appreciation since 1994 (Coulibaly, 2014), other authors argue from a politico-economic perspective that the

[1] With the ongoing implementation of the Eco as the new common currency for the WAEMU (see below), the operation accounts are about to be dissolved and the BCEAO will gain autonomy regarding its foreign reserve management.

compulsion to hold half of the foreign exchange at the French Treasury consolidates a form of monetary repression (Taylor, 2019, pp. 1069–1070) and "reinforces the dependence of the CFA franc zone on France" (Canac and Garcia-Contreras 2011, p. 57; Martin 1986). In a similar line of reasoning, critics point out that French or multinational investors benefit from the fixed parity between the CFA franc and the euro as it frees them from exchange rate risks (Sylla 2020, p. 45).[2] There are only a few studies that look at the impact of the currency link on the interest rate policy of the CFA central banks – and, in some respects, they come to different conclusions (Shortland & Stasavage 2005; Veyrune 2007; Dufrénot 2011).[3] Up to now, the relationship between bank lending in the CFA zone and the institutional agreement to cover 20 per cent of the monetary base by foreign assets of the central bank has been the explicit subject of neither theoretical nor empirical investigation. This is why the aim of this study is (1) to analyze the implications of the CFA currency regime for the interest rate policy of the BCEAO and (2) to demonstrate the extent to which the monetary base coverage restricts bank lending in the WAEMU.

In the following, I will first present the BCEAO's monetary policy objectives and the most important instruments at its disposal for implementing them. Starting from the open-economy trilemma, the third section looks at the BCEAO's response to a change in the key interest rate of the ECB. The fourth chapter examines the difference between the levels of the base rates of the BCEAO and the ECB. Since the interest rate parity (IRP) approach of standard economics does not provide an adequate basis for explaining the latter, we will have recourse here to the post-Keynesian notion of the international currency hierarchy. Following this analysis of the structural constraints on the autonomy of the BCEAO in monetary policy matters, the fifth section first establishes a theoretical relationship between the institutionally anchored 20 per cent coverage of the monetary base and bank lending to the private sector. In the next step, besides the lending of commercial banks, the evolution of the rate of investment together with the monetary base (coverage) is then analyzed using the data from 1994 to 2018. The conclusion summarizes the findings of the study.

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[2] Another part of the criticism relates to the macroeconomic performance (as measured by real GDP) of the F-CFA zone in comparison to the average growth of the sub-Saharan African countries. But Fig. 5 (in the Appendix) shows that for the period 1994-2019, it is not possible to draw any clear conclusions about a better or worse regional economic development from the fact of belonging to the F-CFA zone. Thus, for example, average growth in sub-Saharan Africa from 2003 to 2011 was above the average growth rates of the WAEMU and the CEMAC. Since 2012 (as well as in the period 1994-1999), in turn, the Western CFA countries record, on average, the highest real GDP growth in comparison to the sub-Saharan region as a whole and to the central African CFA countries.

[3] The findings of this research are briefly summarized at the start of the third section.

2. Monetary Policy Objectives and Instruments of the BCEAO

In its statutes, the BCEAO identifies price stability in the WAEMU as its paramount monetary policy objective. Analogously to the inflation target of the ECB, the targeted rate of inflation is defined as 2 per cent – within a tolerated range of deviation of +/-1%.[4] The most important body inuntvolved in implementing the monetary policy goals is the *Comité de la Politique Monétaire* (CPM). Among other things, the interest rates for the provision of (central bank) liquidity (*taux minimum de soumission*, *taux du guichet de prêt marginal)*, the interest rate for commercial banks' deposits with the BCEAO and the level of the minimum reserves required of commercial banks are set or adjusted at the CPM's regular meetings. France's veto over CPM decisions punctuates the political and institutional influence of the former colonial power on the implementation of monetary policy in the WAEMU.

By way of setting the base and deposit rates, the BCEAO tries to influence the evolution of the money supply. Since 2001, the central bank has been using a rate tender in its open market operations to handle regular lending to commercial banks and thus the bulk of the issuing of central bank money. In the weekly and monthly refinancing operations between the BCEAO and the commercial banks, besides announcing the minimum interest rate, the central bank reserves the right, if it so chooses, also to announce a maximum volume of liquidity in the run-up to the auction. With the *guichet de prêt marginal*, moreover, the financial institutions based in the WAEMU always have the possibility of obtaining short-term liquidity from the BCEAO. In contrast to the ECB's marginal lending facility, these central bank loans are not limited to one night, but rather have a term of one to seven days.

As a result of the confirmation of price stability as its most important monetary policy objective in the course of the institutional reform of the BCEAO in 2010, the central bank undertakes to have its monetary policy simultaneously guided by an internal anchor (inflation target of two per cent) and an external anchor (fixed exchange rate link to the euro). Apart from the motive of monetary stability, the correspondence between the BCEAO's targeted rate of inflation and the ECB's inflation target can also be explained by the fact that, in the context of a fixed exchange rate link, sustained inflation differentials between the two currency areas are to be avoided for reasons related to competition policy. Otherwise, a higher rate of inflation relative to the eurozone would reduce the competitiveness of the WAEMU's export-oriented firms and thus have a negative impact on the current

[4] For the eurozone, the Governing Council of the ECB pursues the goal of "maintain[ing] inflation below, but close to, two per cent over the medium term" (ECB, 2011, p. 7).

account of the West African CFA countries.[5] The BCEAO's being guided by the ECB's inflation target is thus a consequence of the fixed exchange rate parity against the euro and highlights the ECB's directive function (Doumbia, 2013).

The BCEAO's two percent inflation target may, however, come into conflict with the monetary policy requirement that 20 per cent of the monetary base be covered by foreign exchange reserves. Thus, for example, a cyclically related inflation rate below the 2% mark could require a cut in the benchmark interest rate on the one hand, while, on the other hand, devaluation pressure on the F-CFA makes a more restrictive monetary policy necessary. Moreover, Stiglitz's (2008) argument that the fluctuations in the prices for raw materials on the global market have a particularly significant impact on the price level of developing countries also applies to the UEMEAO. Since the BCEAO's interest rate policy has no influence on import prices, inflation targeting is not a suitable instrument for responding to these external causes of domestic price developments in the UMEOA (Nubukpo, 2007, p. 74; Tinel, 2016, p. 11).

3. The BCEAO's Interest Rate Response to Benchmark Interest Rate Changes of the ECB

Per the logic of the open-economy trilemma (also known as the *impossible trinity*) (Mundell, 1963; Flemming, 1962), a fixed exchange rate link to the euro with open capital markets deprives the BCEAO of the possibility of setting its benchmark interest rate independently of the interest rate decisions of the ECB. Contrary to the assumption of the free movement of capital in the Mundell-Flemming model, the F-CFA is not freely negotiable on international foreign exchange markets and not directly tradable with any other currency then the euro. The BCEAO manages capital inflows and outflows directly, converts euros into F-CFA and vice versa at the official rate and credits or debits the operation accounts of the involved CFA countries, without having to intervene on the international foreign exchange market. Therefore, despite the nominally fixed exchange rate, the capital controls associated with that type of capital account management bestow a certain degree of autonomy upon the BCEAO in its interest rate policy. Moreover, in the context of the nominal devaluation in 1994, a series of restrictions on capital mobility were adopted to prevent excessive capital outflows (IMF 2014, p. 46; Deléchat & Martijn 2008, p. 92). Nonetheless, the domestic CFA currency is, in principle, convertible into euros via the BCEAO. Therefore, monetary authorities can only resist nominal devaluation

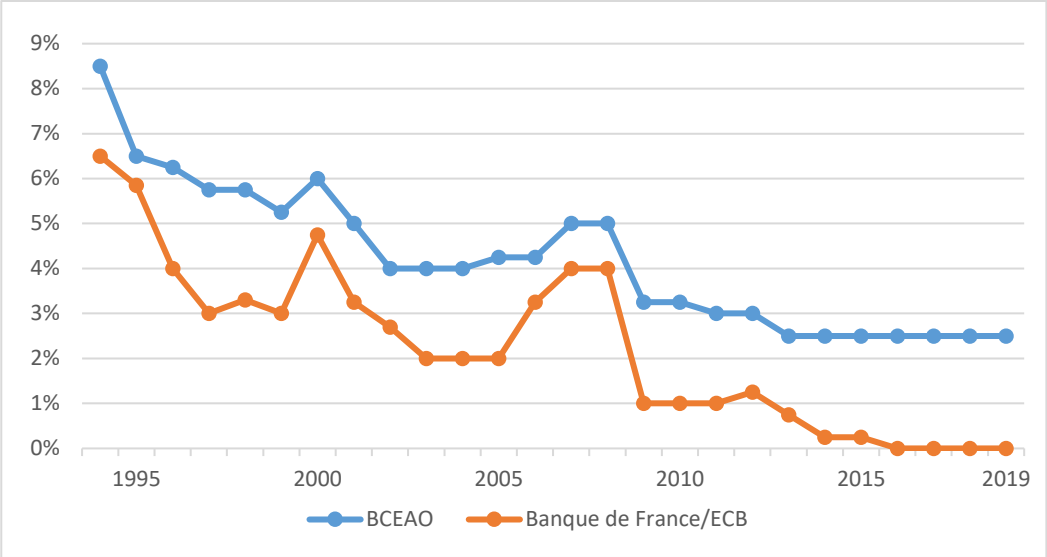
[5] This assumes that the exports of the CFA countries are in fact affected by the average national price increase.

pressures due to a decline in demand for the CFA currency relative to the euro as long as they have sufficient foreign exchange reserves.[6]

There are only a few empirical studies on the autonomy of the BCEAO in monetary policy matters. Dufrénot (2011) shows that the BCEAO's key interest rate from 1980 to 1993 does not only depend on the interest rate policy of the French central bank, but also on the deviation from the real equilibrium exchange rate (REER misalignments), the growth gap (defined as the deviation from the long-term rate of growth) and the inflation differential between the CFA countries and the eurozone, as well as directly on change in foreign exchange reserves. After 1994, only the benchmark interest rate of the Banque de France/ECB and the inflation differential can be shown to have a statistically significant influence. In addition to interest rate policy, Dufrénot also examines the BCEAO's lending decisions in the period 1980-2007. The regression analysis here suggests that the relationship of central bank lending to GDP reacts strongly to changes in foreign exchange reserves. For the period 1956–2005, Veyrune (2007) shows that the influence of changes in foreign exchange on the monetary base abruptly increases after 1994. Following the 50 percent nominal devaluation of the F-CFA, the BCEAO increasingly compensated for foreign exchange outflows by more restrictive lending. Shortland and Stasavage (2005) conclude that although the BCEAO's benchmark interest rate responds to the domestic macroeconomic situation (output gap, target inflation) in the short term, in the long term it follows the rate of change of the franc/euro benchmark interest rate.

[6] In theory, the guarantee of unlimited euro credit facilities by the French Treasury makes it possible for the BCEAO to secure the conversion of the F-CFA into euros even if there is a shortage of foreign exchange reserves. To prevent such recourse to French credit, the treaty, in case of an impending deficit in the Operating Accounts, provides for first making all remaining foreign exchange reserves of the member states available to the central bank in exchange for F-CFA. This arrangement is also known as the *clause de ratissage*; it concerns not only public institutions and private entities, but also the member states' special drawing rights at the IMF. Since the last nominal devaluation of the F-CFA in 1994, neither the WAEMU nor the CEMAC have had recourse to loans via the operating accounts. This also reflects the French position that use of this mechanism should only be allowed as an exception: "If the [CFA] central banks may have unlimited recourse to funds advanced by the French Treasury, this possibility must, per the spirit of the texts, have the character of an exception" (Banque de France, 2015, p. 5).

Fig. 1: Comparison of BCEAO and ECB Benchmark Interest Rates; 1994-2019



Data: Banque de France, BCEAO, author's graph

For the period since 1994, the direction of the BCEAO's benchmark interest rate decisions is largely consistent with the logic of the open-economy trilemma (Fig. 1). The latter is not suitable, however, for explaining the differential between the nominal interest rate of the WAEMU and that of the eurozone. Over the period in question, the differential is, on average, around 1.9 per cent and since 2009, it is around 2.2 per cent. Compared to the rates of adjustment of the benchmark interest rates, this difference is relatively large; its effect on domestic lending can therefore be regarded as relatively strong. In the following section, we will examine the extent to which this difference in level can be explained using the approach of the IRP theory of standard economics.

4. Nominal Interest Rate Differentials

In interest rate parity theory, differences between the domestic and foreign interest rate level are an expression of expected adjustments to the long-term equilibrium exchange rate (corresponding to the theory of purchasing power parity). In this view, the domestic interest rate is above (below) the foreign interest rate by the expected rate of devaluation (revaluation). For an uncovered interest parity, at time t, the return on domestic investment i_t is equal to the return on foreign investment i_t^f taking into account the expected exchange rate $\hat{e}^{exp}$.

$$i_t = i_t^f + \hat{e}^{exp} \tag{2}$$

A covered interest rate parity only applies, however, on the assumption of perfect international capital mobility. Due to existing capital controls and underdeveloped capital markets, IRP theory is only applicable to the F-CFA zone to a limited extent.

Moreover, some (albeit very small) portion of the bonds issued by the F-CFA countries are denominated in dollars (Eurobonds), such that expected exchange rate changes are not relevant for explaining the different interest rates in these cases. But the limited international capital mobility of the F-CFA, which, in theory, allows for deviations from the IRP, is not sufficient to explain why the level of the benchmark interest rates of the BCEAO and the yields of F-CFA-denominated investments were, in the past, much higher than the benchmark interest rates of the ECB or the capital market interest rate in the eurozone. The restriction of the free movement of capital by foreign exchange trading via the Comte d'Opération would rather suggest that the BCEAO uses the scope thus created for interest rate policy, in order to implement a tendentially lower benchmark interest rate and thus strengthen the investment dynamic. Taking into account the rates of inflation in the WAEMU and the evolution of prices in France/the eurozone, Dufrénot (2011, p. 70) finds that real benchmark interest rate differentials declined sharply in the period from 1994 to 2007 and that the international Fisher equation holds for 1998, 2001 and 2005. Since then, however, with the exception of 2008 and 2011, the average rate of inflation of the WAEMU was consistently below average inflation in the eurozone,[7] leading to a renewed divergence of real interest rates.

Following the implications of IRP, a nominal devaluation of the F-CFA would have been expected due to a higher (real) interest rate level in the WAEMU compared to the eurozone. Kohnert (1998, p. 65), for example, expected another nominal devaluation within a few years after the then impending introduction of the euro and the change of anchor currency from the French franc to the euro associated with it, and in a more recent article, he also affirms that the F-CFA is subject to "constant devaluation pressures" (Kohnert 2004, p. 50). In addition, by way of estimating the equilibrium real F-CFA/euro exchange rate, several econometric studies come to the conclusion that the F-CFA is overvalued in real terms (Coulibaly 2014; Gnanounou & Verdier-Chouchane, 2012). As the F-CFA has been neither revalued nor devalued in the last 25 years, it appears that the expectation of a currency devaluation does not provide a sufficient explanation, at least in the short and medium term, for the interest rate difference between the UMEOA and the eurozone.[8]

[7] In 2014 and 2019, the overall price level in the WAEMU was declining.

[8] Since stable exchange rates in the past do not necessarily mean that there will be stable exchange rates in the future, this argument is ultimately only valid retrospectively.

The Interest Rate Differential as an Expression of the Global Currency Hierarchy and Different Liquidity Premiums

The theoretical foundation for post-Keynesian analyses of the international monetary system is provided by the concept of the liquidity premium of money, which is based on the writings of John Maynard Keynes, particularly on chapter 17 of his *General Theory*. As against other financial or tangible assets, money is distinguished by its character as the most liquid object of an economy.[9] Having "the power of disposal" over liquidity provides a non-pecuniary return – what Keynes calls the liquidity premium – in the view of a fundamentally uncertain future (Keynes 1936, p. 226). This applies in particular to commercial banks, on the one hand, and households, on the other, both attaching particular importance to liquidity on the following grounds. The balance sheets of commercial banks contain long-term claims on borrowers, on one side, and short-term liabilities in the form of their clients' demand deposits, on the other. It is this term transformation that principally explains the risk of a liquidity bottleneck and why commercial banks – even when the hypothetical default risk is zero – are not willing temporarily to forego liquid resources without compensation (Heise 2006, p. 44; Lawlor 2006, p. 250). In their position as owners of capital, households have a liquidity preference, since they cannot predict their future need for liquidity with probabilistic (un)certainty (Fantacci, Marcuzzo & Sanfilippo, 2014, p. 1106). The more uncertain they regard future developments to be, the less willing they are to convert secure, non-interest-bearing money holdings into less liquid investments, loans or other financial assets (Fontana 2003, p. 298). From these considerations, in a closed economy, a substantial part of the interest rate earned by capital owners or commercial banks is thus the compensation for relinquishing liquidity over a period of time.

In an open economy, the concept of the liquidity premium of money takes into account that owners of capitals have the choice between various currencies to compose their asset portfolios. Each currency is suitable to varying degrees to fulfill its function as a store of value and international means of payment, with the latter referring to the ability to meet external contractual obligations. The acceptance of a currency as international means of payment and its quality as a store of value determine the height of the currency-specific liquidity premium (Kaltenbrunner 2012, pp. 89–90). Analogously to the interest rate determination in a closed economy, the currency-specific liquidity premium needs to be understood as a non-

[9] In addition, money as a form of capital, in contrast to tangible assets, has value-preservation costs that tend towards 0.

pecuniary income. The US dollar as hegemonic currency and other strong currencies, such as the euro or the British pound, have a relatively high liquidity premium, whereas the currencies of developing countries and emerging economies exhibit a relatively low liquidity premium. From a post-Keynesian perspective, differences in liquidity premiums constitute the hierarchy of the international monetary system. The currency hierarchy has a structural influence on the level of the interest rate in the different currency areas. A persistently lower liquidity premium of the domestic currency relative to a foreign currency ($l^F > l$) requires a greater pecuniary yield of domestic investment compared to investment in the foreign currency ($i > i^F$), in order to compensate for the hierarchically inferior position of the domestic currency. Otherwise, the currency with the lower liquidity premium would constantly depreciate against the currency with the higher liquidity premium (de Paula, Fritz & Prates 2017, p. 189). Following Kaltenbrunner (2015, p. 433), this relationship can be formally represented by equation 2. Expected exchange rate changes are taken into account here by parameter a; their causes can be both neoclassical (rational orientation towards macroeconomic fundamentals) and post-Keynesian (subjective contextual and time-dependent expectations) in nature (Kaltenbrunner 2015, p. 441).

$$(i - i^F) + a = l^F - l \tag{2}$$

Using the post-Keynesian notion of currency-specific liquidity premiums, (key) interest rate differentials between the ECB and the UMEOA can be explained by the relative position of these currencies within the international currency hierarchy. It is thus possible to account for the difference in level between the interest rates of the two currency areas without having to refer to an expected exchange rate adjustment in the sense of IRP theory. The latter is not excluded in principle; but, in light of a nominal exchange rate ratio that has remained unchanged for 25 years, it does not provide an adequate explanation.

The global currency hierarchy sets structural limits to the BCEAO's freedom of action in interest rate policy. If there is free cross-border capital mobility, this assumption applies, in principle, regardless of whether the exchange rate of the F-CFA is nominally fixed or flexible.[10] Other so-called weak-currency countries are also confronted with the requirement of compensating for a relatively low liquidity premium of their own currency by higher pecuniary interest rates. Hence, the

[10] According to Rey (2015, p. 21), this is why the trilemma of open economies can be reduced to a dilemma: "The 'trilemma' morphs into 'dilemma' – independent monetary policies are possible if and only if the capital account is managed, directly or indirectly, regardless of the exchange-rate regime."

question has still to be asked of how the specific design of monetary cooperation between France and the WAEMU influences the BCEAO's issuance of money and the domestic lending of commercial banks. As regards the mandatory coverage of the monetary base, this will be examined in the following section.

5. Implications of the Coverage of the Monetary Base for Bank Lending

An important theoretical mechanism through which monetary policy affects private investment and growth in the economy is the interest rate channel. According to this transmission mechanism, the central bank sets the benchmark rate for short-term lending, that impacts, by way of arbitrage, the long-term nominal interest rates on the bond market. Lower/higher (real) interest rates on the bond market, increase/decrease the firms' costs of borrowing on the financial markets, and consequently, positively/negatively affects private investment in the economy.[11] In most developing countries, and in Sub-Saharan Africa in particular (Allen, Otchere & Senbet 2011), financial markets are least developed and thus play a minor role in corporate sector financing. Instead, private (and often very small scale) enterprises mainly depend on bank loans to finance investments (Levy-Orlik, 2012, p. 117, Sanfilippo-Azofra et al., 2017). For that reason, monetary policy is more effective through its impact on bank lending then on financial markets.[12] As the central bank's interest rate determines the conditions on which commercial banks can borrow liquidity through open market operations or on the money market, monetary policy also affects the refinancing costs of private bank lending. Assuming that commercial banks pass on higher funding costs to firms by raising interest rates on loans, then, ceteris paribus, credit-financed investments are expected to decline. The strength of this effect depends on the interest rate sensitivity of corporate investment.

In their meta-study, Mishra and Montiel (2013) come to the conclusion that the transmission of monetary policy in low-income economies with respect to real economic demand and price level cannot be clearly demonstrated in empirical terms. Using a vector autoregression model, Lungu (2007) shows for a group of non-CFA countries in sub-Saharan Africa that a more restrictive interest rate policy of

[11] This assumption can be traced back to the traditional Keynesian IS-LM model.

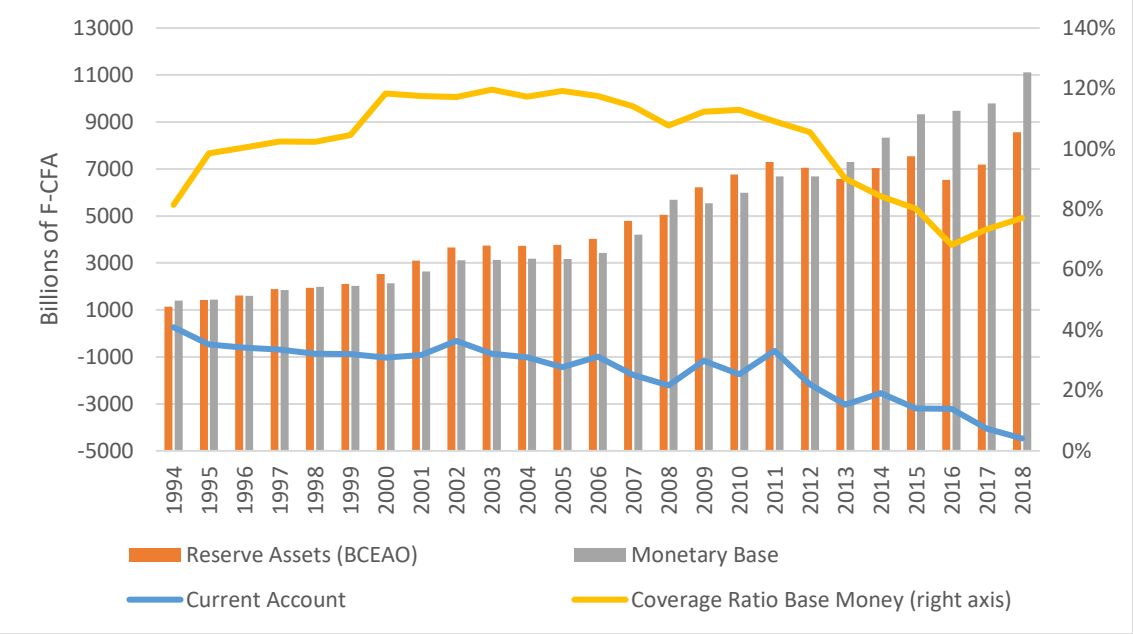
[12] It is noteworthy, that here, "bank lending" does not refer to the conventional bank lending channel that is theoretically based on the assumption of a direct control of the money supply as represented by the money multiplier model or loanable founds theory (Bernanke & Blinder, 1988). Instead, it is the (entrepreneurs') demand for credit that creates non-banks' deposits as a direct result of the commercial banks loan. This endogenous way of money creation is initially not linked to the reserves of private banks (McLeay, Radia & Thomas, 2014). In contrast, the money supply adapts to the firms' (or households') interest rate dependent investment (or consumption) decisions and not to a quantitative change of the monetary base.

central banks has a negative impact on the lending of commercial banks, but no clear causal relationship with the output gap and the price level can be derived from the findings. Whereas Saxegard (2006) finds for Nigeria and Uganda that GDP and price level react to a monetary policy shock, this effect is not to be observed in his model for the eastern part of the F-CFA zone, the CEMAC. Tadenyo (2015) shows for the WAEMU countries, however, that the interest rate on the interbank market reacts in the short and medium term to a change in the BCEAO's benchmark rate. A positive monetary shock has a weak negative impact on the growth rates of the WAEMU countries in Nubukpo's (2002) VAR model. Abou (2010) is able to show a weak positive correlation between the lending of commercial banks and the evolution of GDP growth in the WAEMU.

In the WAEMU, as in the CEMAC, the French Treasury guarantees the convertibility of the F-CFA by way of theoretically unlimited overdraft facilities. In order to minimize the likelihood of the guarantee being used, the BCEAO is required to cover 20 per cent of the money base by gross foreign assets. This arrangement, which resembles that of a currency board, implies that the BCEAO is partially dependent on capital imports when providing central bank reserves to commercial banks. If the ratio between the central bank's foreign exchange reserves and the monetary base approaches the 20 per cent threshold, the central bank needs to react with a more restrictive monetary policy, which would make the refinancing conditions of commercial banks more expensive. In this case, the institutionally anchored condition regarding base money coverage would thus restrict the BCEAO's interest rate policy and constrain bank lending in the WAEMU.

Figure 2 shows that from 1994 (the year of the 50 per cent devaluation of the F-CFA) until 2017, the coverage ratio of the money supply is consistently well above the required 20 per cent limit. The ratio of the gross foreign assets of the BCEAO to the monetary base was 81 per cent in 1994, reached its highest figure of around 120 per cent in 2003 and fell to around 77 per cent by 2018. The fall in the coverage ratio over the period as a whole can be explained by the stronger growth of the central bank money supply as compared to foreign exchange reserves. From 2010 onwards, the BCEAO's gross foreign assets remain relatively constant, while the monetary base continues to grow.

Fig. 2: Evolution of Monetary Base Coverage (BCEAO) and Current Account Balance (WAEMU), 1994-2018



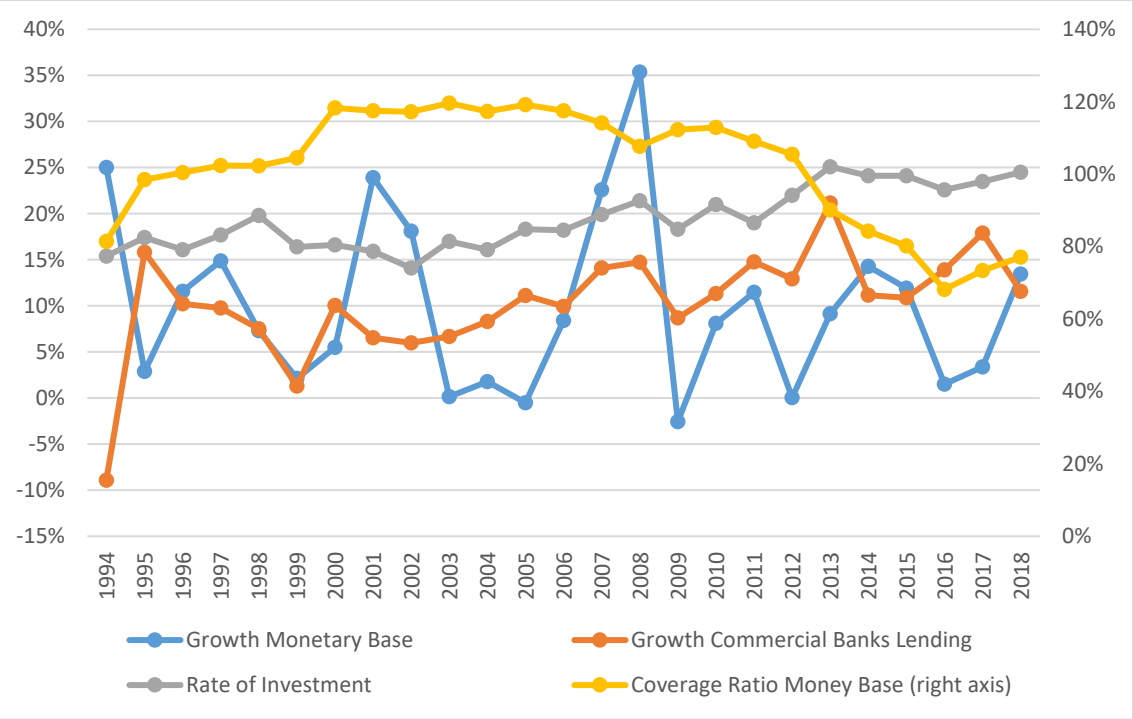
Data: Banque de France, annual reports on the franc zone 1994-2019 available at https://www.banque-france.fr/liste-chronologique/rapports-annuels-de-la-zone-franc-0 and https://www.banque-france.fr/fileadmin/user_upload/banque_de_france/archipel/banque_de_france/bdf_ra_zf.html

The accumulation of gross assets in foreign currency requires either a current account surplus or capital imports. Since 1995, the UMEOA countries as a whole have consistently exhibited a negative current account balance and since 2005 a negative balance of trade. They thus have to rely on capital imports, in order to finance the current account deficits, and, from a monetary policy perspective, to ensure coverage of the monetary base in the long term. Foreign capital inflows essentially depend on the interest rate level or on the difference between domestic and foreign interest rates. Assuming an unchanged current account balance and constant foreign interest rates, there remains the possibility for the BCEAO to raise the key interest rate, in order to expand its (gross) foreign exchange reserves.

Figure 3 shows, moreover, that the lowest rate of investment during the period under consideration, in 2002, coincides with a very high coverage ratio of the monetary base (117 per cent). Growth in commercial bank lending also has its second lowest figure in this year at 6 per cent (after 1 per cent in 1999) and (apart from 2009, the highpoint of the global economic crisis) is consistently in double digits since 2005. The comparison between the growth of commercial bank lending and the growth of the monetary base shows that an increase (decrease) in the growth of lending on the part of the commercial banks for the most part coincides with an increase (decrease) in the growth of the monetary base. The comparison

between the growth in lending to the private sector and the growth in the refinancing of the commercial banks likewise reveals a highly uniform pattern. For the years 2009-2017, this is also the case with regard to the rate of investment (Fig. 4). These observations suggest that in the WAEMU part of investment in the real economy is refinanced via central bank lending and hence affects the (coverage ratio of the) monetary base.

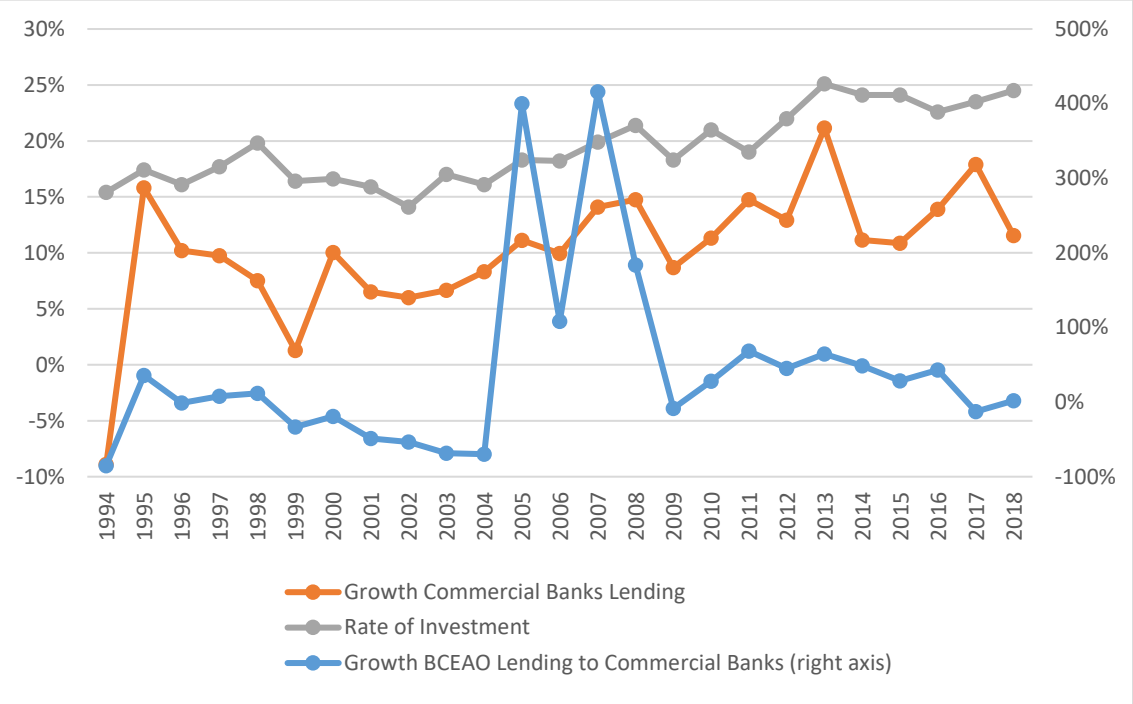
Fig. 3: Growth of Monetary Aggregates and the Rate of Investment (WAEMU), 1994-2018



Data: Banque de France, annual reports on the franc zone 1994-2019; author's graph

Since the coverage of the monetary base by the BCEAO's gross foreign exchange reserves is several times greater than 20 per cent, there is no reason to expect that this criterion will have an influence on the BCEAO's monetary decisions in the short term. But in light of the latest developments since 2012, a more restrictive monetary policy in response to the declining coverage ratio appears entirely realistic in the medium term, if this trend should continue. Higher domestic interest rates can be expected to result in a decline in domestic investment. The strength of this effect mainly depends on the interest rate elasticity of entrepreneurial investment decisions. Therefore, a policy-induced increase in short term interest rates could lead to a situation in which central bank money is sufficiently covered by foreign exchange assets, without the former being needed anymore to refinance the commercial banks' loans. Hence, a strict fulfilment of the institutionally binding base money coverage through restrictive monetary policy potentially conflicts with investment driven demand for bank loans.

Fig. 4: Growth in Bank Lending, Growth in Central Bank Refinancing and Rate of Investment in the WAEMU, 1994-2018



Data: Banque de France, annual reports on the franc zone 1994– 2019; author's graph

The BCEAO's autonomy in monetary policy matters is restricted on the structural and institutional level. On the structural level, by the lower liquidity premium of the F-CFA relative to the euro, requiring a generally higher (key) interest rate, and, due to the fixed exchange rate link to the euro, which requires it to be guided by the benchmark interest rate decisions of the ECB. On the institutional level, the BCEAO has an obligation to manage the monetary base in a way that indirectly also restricts domestic lending. Consideration of the coverage ratio of the monetary base made clear that the BCEAO has far exceeded the required 20 per cent mark since 1994 and that (gross) foreign exchange reserves have also constantly grown. Tinel (2016, p. 2) interprets this constellation, in which the foreign exchange position of the WAEMU countries at the French Treasury is far above the required minimum, as an expression of a fundamentally restrictive monetary policy within a restrictive institutional framework, and he recommends a more flexible inflation target, which is adapted to real economic growth.[13]

High market concentration in the banking sector is another obstacle to the financing of investment in the real economy. According to Koddenbrock and Sylla (2019, p.

[13] Even with a more flexible inflation target, contrary to the Tinbergen Rule, there would still only be available one instrument (the BCEAO's interest rate policy) for two targets (exchange rate stabilization and inflation). A more dynamic inflation target could at least mitigate this problem, however. Thus, in case the CFA inflation rate is above 2 per cent, the fixed exchange rate orientation would not automatically lose priority as long as the inflation is "justified" by real GDP growth.

17), small and medium-sized companies, above all, suffer as a consequence. Long-term corporate loans account for only around 10 per cent of commercial bank loans to the private sector in the WAEMU, and, at 22 per cent of GDP (in 2014), the volume of private sector lending is far below that of the regional non-CFA countries Nigeria (35 per cent) and Ghana (32 per cent) (Diop 2015, p. 62). About half of the lending to the corporate sector is limited to 400 firms (Banque de France, 2015, p. 59). Since 1994, there had been a progressive reduction of the BCEAO's direct public sector financing. This source of public finance has been replaced by commercial banks in the WAEMU now achieving an important part of their profits with loans to public sector entities and government bonds (Banque de France, 2016, p. 48). In doing so, they also benefit from the fact that the income earned from government securities is tax exempt (Sy 2007, p. 6). As a result of the relatively high net interest margin of commercial banks in the CFA zone due to the situation of competition, the firms' expected profitability of an investment in the real economy has to be relatively high to have an incentive to borrow and invest.

6. Conclusion

The foregoing study examined the question of the impact of the CFA currency regime on the interest rate policy of the BCEAO and the resulting consequences for domestic lending. We first found that the eurozone-oriented 2 percent inflation target is, on the one hand, to be explained by the fixed exchange rate link to the euro and, on the other hand, threatens to come into conflict with the monetary base coverage, if the foreign exchange holdings of the central bank in combination with simultaneous deflationary tendencies should demand an increase in the benchmark interest rate.

Analysis of the BCEAO's interest rate response to changes in the ECB's benchmark interest rate showed that (since the 50 per cent nominal devaluation of the F-CFA in 1994) the BCEAO's interest rate policy has been guided by the benchmark interest rate decisions of the European Central Bank – and that its behavior thus reflects the logic of the "open economy trilemma". In contrast to the orientation of the BCEAO's benchmark interest rate decisions, the difference in the levels of the benchmark interest rates of the European and West African monetary unions cannot be explained using the instruments of standard economics. According to the arguments of IRP theory, the constantly higher BCEAO benchmark interest rates since 1994 would require a nominal devaluation of the F-CFA. But this has not occurred for over 25 years. We were able to overcome the obvious contradiction between the theoretical assumptions of IRP theory and empirical observation by having recourse to the post-Keynesian notion of currency-specific liquidity premiums. The level of

the liquidity premiums of different currencies is what determines the structure to the international monetary order. Since – in contrast to the euro – the F-CFA is of relatively low quality as capital asset and enjoys little or no acceptance as an international means of payment, its liquidity premium is to be regarded as relatively low. The lower liquidity premium of the F-CFA relative to the euro requires, in turn, a commensurately higher pecuniary yield. The difference in level between the key interest rates of the ECB and of the BCEAO is thus fundamentally to be explained by the higher position of the euro in the global monetary hierarchy.

Apart from the structural factor of a low liquidity premium – which, in principle, has an effect of driving the interest rate even in the case of a flexible exchange rate – in the last part of the study, I first worked out the theoretical implications of the institutionally anchored 20 per cent coverage of the monetary base. The commercial banks of the western CFA zone are partly dependent on central bank money to refinance the (corporate) loans they have made. The treaty-based requirement of BCEAO minimum foreign exchange holdings of 20 per cent of the monetary base thus functions as a technical prerequisite for domestic lending and income-generating investment in the WAEMU. The dominance of the bank credit channel in corporate financing, which is typical for developing countries, makes refinancing via the central bank even more significant. Empirical analysis of the monetary aggregates that are relevant in this context showed that the coverage ratio of the monetary base – despite the fact that it has been declining since 1994 – is still relatively far from the institutionally anchored 20 per cent limit. The room for maneuver of the BCEAO in monetary policy matters or, more precisely, domestic lending is currently not (yet) restricted by the operational principle of 20 percent coverage of the monetary base. This does not mean, however, that the CPM may not regard a coverage ratio above the 20 per cent limit as already critical and respond by a more restrictive monetary policy much earlier than the institutional framework would require. It is striking, moreover, that especially since 2011, the declining coverage of the monetary base has been accompanied by an increasing rate of investment.

In a joint statement on 21 December 2019, the president of the Ivory Coast Alassane Ouattara and French president Emmanuel Macron announced that the WAEMU countries have agreed to introduce the Eco as the new common currency of the Economic Community of West African States (ECOWAS) by the end of 2020[14]

[14] However, there have already been announcements of the launch of the Eco for 2005, 2010 and 2015, without it having been possible to hold to the project's schedule.

(Fröhlich 2019). Besides the current western CFA countries, seven other non-CFA countries are members of the ECOWAS; including, among others, the regional economic heavyweights Nigeria and Ghana. The most important institutional changes accompanying the change of currency are the dissolution of the operating accounts and the elimination of French representation in the monetary policy committee of the new monetary community – a step that can be understood as a reaction to the sustained criticism of the colonial character of the CFA currency regime. The fact that both the fixed nominal exchange rate link to the euro and France's credit guarantee to ensure convertibility will be retained raises the (still unanswered) question of which monetary policy rules will be used (or should be used) in the future. In any case, the decision-makers of the new common currency should keep in mind that (too restrictive) coverage of the monetary base entails the risk of restricting lending and hence investment in the real economy as well.

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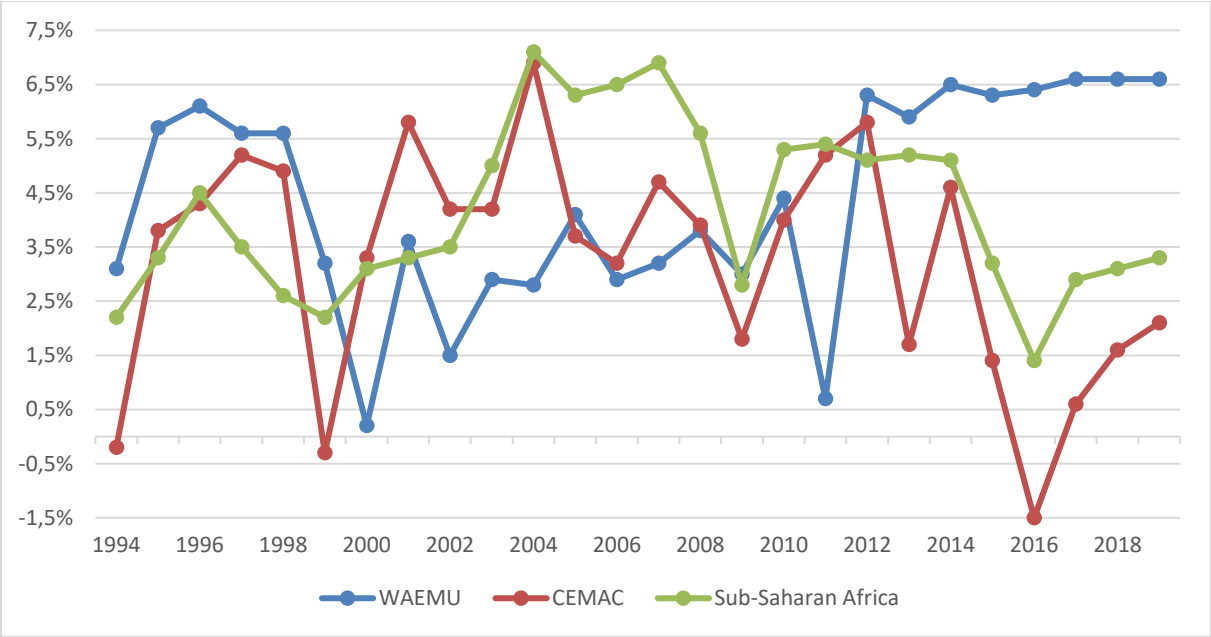
Appendix

Figure 5: Real Growth Rates WAEMU, CEMAC und Sub-Saharan Africa, 1994–2019



Data: Banque de France, BCEAO, annual reports 1994–2019; author's graph